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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/810,567 | 03/29/2004 | Hang Nguyen | Q80429 | 1229 |
| 23373 | 7590 | 11/16/2004 | EXAMINER | |
| SUGHRUE MION, PLLC 2100 PENNSYLVANIA AVENUE, N.W. SUITE 800 WASHINGTON, DC 20037 | | | NGUYEN, LINH V | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2819 | |

DATE MAILED: 11/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/810,567

Applicant(s)

NGUYEN ET AL.

Examiner

Linh V. Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 2 and 9 is/are rejected.
- 7) ☒ Claim(s) 3-8 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 3/29/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. This office action is in response to application No. 10/810,567 filed on 03/29/04. Claims 1 – 9 are pending on this application.

Information Disclosure Statement

2. The information disclosure statement filed on 03/29/04 has been considered.

Priority

3. Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d). The certified copy has been filed in parent Application No. 03290826.1, filed on 04/02/03.

Specification

4. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1 and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Twardowski U.S. Patent No. 6,043,763.

7. Regarding claim 1, Fig. 1 of Twardowski discloses a method for decoding (Col. 3 line 6 - 7) Variable Length Codes used to encode data (Col. 1 lines 25 – 26) having a predefined type, preferably image or video data (Col. 1 lines 20 – 21), said encoded (Col. 1 line 15 – 16) data consisting in a sequence of codewords belonging to a predefined set of codewords (Col. 1 lines 25 – 32; disclosing an encoding sequence of each possible symbol input data is mapping to a variable length codeword belonging to a predefined set of Huffman codewords), said method comprising the steps of: building at least one partial decoded codeword sequence (103A, 103B, 103C, 103D) comprising at least two decoded codewords (Col. 4 lines 1 – 8, disclosing a each partial decoder is associated with a codeword decoded. Therefore, Fig. 1 [103A, 103B, 103C,103D] teaches at least four decoded codewords; Also see TABLE 1 on Col. 3 lines 38 - 50 for disclosing a decoded codewords table for each partial decoder); checking if said partial decoded codeword sequence fulfils at least one property intrinsic to said predefined type of data (Col. 4 lines 5 – 14, disclosing valid output from partial decoder sequence to indicate that the partial decoders sequence 103a – 103c has decoded a valid codeword, wherein the property of the valid codeword is a the sum codeword length).

Regarding claim 9, Fig. 1 of Twardowski disclose a receiver for receiving data encoded (Input Data) with a Variable Length Code (Col. 1 lines 25 – 26), said receiver

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comprising: means (100) for building at least one partial decoded codeword sequence (103A, 103B, 103C, 103D) comprising at least two decoded codewords (Col. 4 lines 1 – 8, disclosing a each partial decoder is associated with a codeword decoded. Therefore, Fig. 1 [103A, 103B, 103C, 103D] teaches at least four decoded codewords; Also see TABLE 1 on Col. 3 lines 38 - 50 for disclosing a decoded codewords table for each partial decoder); means (Col. 4 lines 9 – 10 disclosing “comparing”) for checking if said partial decoded codeword sequence fulfils at least one property intrinsic to said predefined type of data (Col. 4 lines 5 – 14, disclosing valid output from partial decoder sequence to indicate that the partial decoders sequence 103a – 103c has decoded a valid codeword, wherein intrinsic property of the codeword of video data is the codeword length).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Twardowski as applied to claim 1 above, and further in view of Lin U.S. Patent No. 6,734,812.

Twardowski as applied to claim 1 above, fails to disclose wherein said encoded data are transmitted over an air interface in a wireless communication network.

Col. 1 lines 17 –18 of Lin disclose wherein said encoded data are transmitted over an air interface in a wireless communication network.

Twardowski and Lin are common subject matter for variable length encoder and decoder. Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate encoded data transmitted over wireless communication taught by Lin into the transmitted encoded data of Twardowski for the purpose of reducing hard-wired interface in data communication.

Allowable Subject Matter

10. Claims 3 – 8 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

With respect to claim 3, prior art does not teach wherein partial decoded codeword sequences are iteratively obtained by adding at each iteration an additional plausible codeword, the number of partial decoded codeword sequences at each iteration being equal to the number of additional plausible codewords which can be decoded, and wherein the method comprises the steps of: computing a metric for each obtained partial decoded codeword sequence; said metric giving an information on the meaningfulness of a sequence of data of said predefined type having a predefined bit length; said property intrinsic to said predefined type of data consisting in keeping only the partial decoded codeword sequence

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of said predefined bit length, herein called survivor of bit length L, optimizing said metric for the next iteration.

With respect to claim 6, prior art does not teach wherein at least one property intrinsic to image or video data consisting in checking if for a partial decoded codeword sequence having a bit length smaller or equal to the number of pixels per data blocks, noted N,

$$\sum_{\text{codewords} \in \text{partial sequence}} \text{run codeword} + 1 \leq N,$$

wherein said parameter "run" is related to the number of pixels coded in a codeword.

With respect to claim 7, the prior art does not teach least one property intrinsic to image or video data consisting in checking if for a partial decoded codeword sequence having a bit length smaller than the number of pixels per data blocks, an indicator of the end of block equals 0 and for a partial decoded codeword sequence of bit length equal to the number of pixels per data blocks, an indicator of the end of block equals 1.

Cited References

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The cited references are relating to Digital to Analog converter with segment of current sources.

Contact Information

12. Any inquiry concerning this communication or earlier communications from the

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examiner should be directed to Linh Van Nguyen whose telephone number is (571) 272-1810. The examiner can normally be reached from 8:30 – 5:00 Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Michael Tokar can be reached at (571) 272-1812. The fax phone numbers for the organization where this application or proceeding is assigned are (703-872-9306) for regular communications and (703-872-9306) for After Final communications.

11/04/2004

Linh Van Nguyen

A handwritten signature in black ink, appearing to read 'Linh Van Nguyen', written over the printed name.

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